UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,032	02/26/2002	H. Brock Kolls	USE-674US	3265

23122   7590   11/13/2007

RATNERPRESTIA
P O BOX 980
VALLEY FORGE, PA 19482-0980

EXAMINER
TROTTER, SCOTT S

ART UNIT	PAPER NUMBER
3694	

MAIL DATE	DELIVERY MODE
11/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/083,032	KOLLS, H. BROCK
	Examiner	Art Unit	
	Scott S. Trotter	3694	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>25 May 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-21,23-152 and 154</u> is/are pending in the application.

    4a) Of the above claim(s) <u>See Continuation Sheet</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,4,5,15,18,23,24,52,54,66,82,88,114,132,135-138,146,149,152 and 154</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

Continuation of Disposition of Claims: Claims withdrawn from consideration are 2,3,6-14,16,17,19-21,25-51,53,55-65,67-81,83-87,89-113,115-131,133,134,139-145,147,148,150 and 151.

DETAILED ACTION

Status of the Claims

1.   This action is in response to the response filed on May 22, 2007. Claims 1, 4, 5, 15, 18, 23, 24, 52, 54, 66, 82, 88, 114, 132, 135-138, 146, 149, 152, and 154 are pending and examined. Claims 22 and 153 are canceled. Claims 2, 3, 6-14, 16, 17, 19-21, 25-51, 53, 55-65, 67-81, 83-87, 89-113, 115-131, 133, 134, 139-145, 147, 148, 150, and 151 are withdrawn from consideration.

Response to Arguments

2.   Applicant's arguments filed May 22, 2007 have been fully considered but they are moot due to the applicant's amendment.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1, 4, 15, 23, 24, 54, 66, 88, 114, 132, 135, 138, 146, 152, 153, and 154 are rejected under 35 U.S.C. 103(a) as being unpatentable over Howell in view of Editor & Publisher Vol. 126, Iss. 24 Page 62 (Hereafter E&P).

As for claim 1 Howell teaches:

A semiconductor comprising:

a micro processing unit; (*See column 4 lines 31-32*)

a vending equipment interface interconnected with said micro processing unit for

interconnecting said semiconductor to a vending machine; (*See abstract*)

a memory accessible by the micro processing unit, wherein the micro processing

unit constructs and manages a MDB TRANSACTION STRING in the memory, (*See*

Column 4 Lines 28-47. Connections made using the MDB protocol will inherently use

MDB TRANSACTION STRINGs to communicate requiring such strings to be

constructed in memory.) the MDB TRANSACTION STRING comprising data fields, the

microprocessing unit configured to update the data fields to record transactions

received through the vending equipment interface;

an interactive interface interconnected with said micro processing unit, said

interactive interface data communicates with a computing platform; (*See abstract*) and

a plurality of application code executed by said micro processing unit for

effectuating at least one of the following: a cashless vending transaction with said

vending machine, monitoring or control of said vending machine, or data communication

with a remote host computer. (*See abstract*. Howell provides monitoring.)

While Howell does not explicitly teach transmitting transaction information it does

teach establishing data connections using MDB TRANSACTION STRING to

communicate between a vending machine and a central database of information about

the vending machines. (*See Column 5 Lines 34-39*. The system is bi-directional and

can support sending software updates and changing prices so it can inherently send

any contemplated data back and forth.) E&P teaches having vending machines compile

transaction data to be uploaded to a server where it could be sent to banks for payment. (*See E&P page 2 paragraph 2.*) Therefore it would have been obvious to a user of ordinary skill in the art at the time the invention was made to use the existing data connections from Howell using MDB TRANSACTION STRING to communicate the transaction data to a central database where a server could then contact banks for payment taking advantage of the existing communications channel between the vending machines and a central database.

As for claim 4 Howell teaches:

The semiconductor in accordance with claim 1 wherein, said vending equipment interface is at least one of the following: a vend machine controller, a bill interface, a coin interface, a mimic MDB interface, a MDB interface, or a DEX interface. (*See Column 4 Lines 28-47.* The vending machine controller is connected to either a MDB or Dex interface.)

As for claim 15 Howell teaches:

The semiconductor in accordance with claim 1 wherein, said vending equipment interface is a DEX compliant interface, for interconnecting said semiconductor to a DEX port. (*See Column 4, Lines 35-38.* Vending machine controller is connected to the vendor interface unit via either DEX or MDB.)

As for claim 23 Howell teaches:

The semiconductor in accordance with claim 22 wherein, said MDB TRANSACTION STRING comprises at least one of the following fields:

a VEND STATE field, a MAX VEND SALE field, a SALE PRICE field, a COLUMN field, or a VEND FLAG field. (*See Column 8 Lines 61-66*. Among the messages being passed is an alarm parameter. *Also see Column 5 Lines 34-39*. The system can support sending software updates and changing prices so it can inherently send any contemplated data back and forth.)

As for claim 24 Howell teaches:

The semiconductor in accordance with claim 1 wherein, said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said MDB TRANSACTION STRING data be cleared. (*See Column 4 Lines 28-47*. Clearing the transaction string data is inherent otherwise the device would only be able to communicate once.)

As for claim 54 Howell teaches:

The semiconductor in accordance with claim I wherein, said computing platform by way of said interactive interface data communicates a command to said semiconductor to request a vending session previously started be terminated. (See the rationale of claim 1 above. Termination of connections is inherent otherwise a device would have to maintain a potentially near infinite number of connections.)

As for claim 66 Howell teaches:

The semiconductor in accordance with claim I wherein, said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor data communicate captured and stored MDB bus data to said computing platform. (*See Column 4 Line 64 through Column 5*

Line 5 and Column 5 Lines 34-39. The host communicates with the various vending

machines receiving data from each of them. While all of those transmissions could be

prescheduled the ability to send software to the vending machines inherently includes

the ability to send new commands to the vending machines because software consists

of many commands combined together to achieve some purpose. So the ability to send

software is the ability to send commands.)

As for claim 88 Howell teaches:

The semiconductor in accordance with claim 1 wherein, said computing platform

by way of said interactive interface data communicates a command to said

semiconductor to request said semiconductor data communicate USALIVE

configuration data to said computing platform. (*See.Column 4 Lines 64-67.*

Handshaking between two communication devices is what is being described in the

specification when it discusses USALIVE configuration data being passed.)

As for claim 114 Howell teaches:

The semiconductor in accordance with claim 1 wherein, said computing platform

by way of said interactive interface data communicates a command to said

semiconductor to request said semiconductor initiate DEX query mode inquiry of said

vending machine. (*See Column 4 Lines 64-Column 5 Lines 2, and Column 4 Lines 33-*

38. The devices were communicating using DEX in order to receive the data they must

initiate query mode of operation. Therefore DEX query mode is inherent in the

operation. The specification also states that for further information regarding DEX query

mode the EVA-DTS DEX protocol standard should be referred to. That means that means that DEX query mode is part of the standard and well known in the art.)

As for claim 132 Howell teaches:

A semiconductor implementing an interactive interface communication protocol with a computing platform, said semiconductor comprising:

a micro processing unit; (See column 4 lines 31-32)

a vending equipment interface interconnected with said micro processing unit for interconnecting said semiconductor to a vending machine; (See abstract)

a memory accessible by the micro processing unit, wherein the micro processing unit constructs and manages a MDB TRANSACTION STRING in the memory, (See Column 4, Lines 28-47. Connections made using the MDB protocol will inherently use MDB TRANSACTION STRINGs to communicate requiring such strings to be constructed in memory.) the MDB TRANSACTION STRING comprising data fields, the micro processing unit configured to update the data fields to record transactions received through the vending equipment interface;

an interactive interface interconnected with said micro processing unit, said interactive interface data communicates with said computing platform, (See abstract) wherein data communication between said semiconductor and said computing is in accordance with said interactive interface communication protocol; (Bottom of page 38 of the Specification received 2/26/2002 details that the communications are serial communications which are well known and the RS232 shown in Figure 3 of Howell is a serial communication device.) and

a plurality of application code executed by said micro processing unit for effectuating at least one of the following: a cashless vending transaction with said vending machine, monitoring or control of said vending machine, or data communication with a remote host computer. (*See abstract.* Howell provides monitoring.)

While Howell does not explicitly teach transmitting transaction information it does teach establishing data connections using MDB TRANSACTION STRING to communicate between a vending machine and a central database of information about the vending machines. (*See Column 5 Lines 34-39.* The system is bi-directional and can support sending software updates and changing prices so it can inherently send any contemplated data back and forth.) E&P teaches having vending machines compile transaction data to be uploaded to a server where it could be sent to banks for payment. (*See E&P page 2 paragraph 2.*) Therefore it would have been obvious to a user of ordinary skill in the art at the time the invention was made to use the existing data connections from Howell using MDB TRANSACTION STRING to communicate the transaction data to a central database where a server could then contact banks for payment taking advantage of the existing communications channel between the vending machines and a central database.

As for claim 135 Howell teaches:

The semiconductor in accordance with claim 132 wherein, said vending equipment interface is at least one of the following: a vend machine controller, a bill interface, a coin interface, a mimic MDB interface, a MDB interface, or a DEX interface.

(*See Column 4 Lines 28-47*. The vending machine controller is connected to either a MDB or Dex interface.)

As for claim 138 Howell teaches:

The semiconductor in accordance with claim 132 wherein, said vending equipment interface is an MDB compliant interface, for interconnecting said semiconductor to said vending machine, said vending machine having an MDB bus. (*See Column 4 Lines 28-47*.)

As for claim 146 Howell teaches:

The semiconductor in accordance with claim 132 wherein, said vending equipment interface is a DEX compliant interface, for interconnecting said semiconductor to a DEX port. (*See Column 4, Lines 35-38*. Vending machine controller is connected to the vendor interface unit via either DEX or MDB.)

As for claim 152 Howell teaches:

The semiconductor in accordance with claim 132 wherein, said vending machine is at least one of the following types: beverage style vending machines, snack style vending machines, specialty style vending machines, a copier, a fax machine, a personal computer, a data port, or office equipment. (*See Figures 1 and 4A*. In Figure 1 it looks like a cold beverage machine. In Figure 4A a data source is a Bottler which would be a beverage machine.)

As for claim 153 Howell teaches:

The semiconductor in accordance with claim 132 wherein, said micro processing unit having data communication access to a memory device implements an MDB

TRANSACTION STRING in said memory device. (*See Column 4 Lines 28-47.*

Connections made using the MDB protocol will inherently use MDB TRANSACTION

STRINGs to communicate.)

As for claim 154 Howell teaches:

The semiconductor in accordance with claim 132 wherein, said MDB

TRANSACTION STRING comprises at least one of the following data fields: a VEND

STATE field, a MAX VEND SALE field, a SALE PRICE field, a COLUMN field, or a

VEND FLAG field. (*See Column 8 Lines 61-66.* Among the messages being passed is

an alarm parameter. *Also see Column 5 Lines 34-39.* The system can support sending

software updates and changing prices so it can inherently send any contemplated data

back and forth.)

5.   Claims 5, 82, 136, and 137 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Howell in view of E&P.

As for claim 5 Howell teaches:

The semiconductor in accordance with claim 1 wherein, said vending equipment

interface comprises a UART, said UART being configured to data communicate eight

data bits and one address bit in addition to start and stop bits. (*See Fig. 3.* An RS232

is a UART. A UART can be configured to transmit data in any serial format. Therefore

while Howell does not explicitly disclose formatting the data in a particular way it would

have been obvious to a person of ordinary skill in the art at the time the invention was

made to select a format that could transmit the needed data.)

As for claim 82 Howell teaches:

The semiconductor in accordance with claim 1 wherein, said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor data communicate with a printer. (*See Fig. 3.* The specification states the printer connection can be an RS232 connection, which is included in Howell making it obvious to attach a printer to the RS232 connection belonging to the device in Howell. While a printer is not shown in Howell it would have been obvious to a person of ordinary skill in the art at the time the invention was made that a printer could be connected via the RS232 connection.)

As for claim 136 Howell teaches:

The semiconductor in accordance with claim 132 wherein, said vending equipment interface comprises a UART, said UART being configured to data communicate eight data bits and one address bit in addition to start and stop bits. (*See Fig. 3.* An RS232 is a UART. A UART can be configured to transmit data in any serial format. While no particular format is suggested in Howell it would have been obvious to a person of ordinary skill in the art at the time the invention was made to select a format that could transmit the needed data and eight data bits with a data parity check bit and start and stop bits is a standard format.)

As for claim 137 Howell teaches:

The semiconductor in accordance with claim 136 wherein, said semiconductor by way of said UART detects a valid address byte data communicated from said vending machine, said valid address byte indicates data to follow from said vending machine is

intended for said semiconductor, upon detecting said valid address byte said

semiconductor data communicates with said vending machine. (*See Column 4 Line 64-*

Column 5 Line 3. The handshaking is two devices agreeing that they are meant to talk

to each other and how they are going to format the messages. The valid address byte

is the equivalent of a phone number and it is just confirming the right number was called

before sending the data. Detecting an address is a standard part of the Ethernet

protocol. While Howell does not explicitly disclose the details involved in handshaking

they would be obvious to a person of ordinary skill in the art at the time the invention

was made.)

6.   Claims 18 and 149 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Howell in view of E&P and Squires (U.S. Patent 7,032,038 B1).

As to claim 18 Howell teaches:

The semiconductor in accordance with claim 1 wherein, said vending equipment

interface comprises a UART, (*See Howell Figure 3.* RS232 is a UART. But Howell

does not address pin level configurability.) said UART transmit line is pin level

configurable during non-data communication idle states to a high impedance state or a

low signal level state. (*See Squires claims 1 and 2.* Claim 1 is pin level configurable

device and claim 2 is that device being a UART. Since the Squires device does not

have a bypass it will supply high impedance, low signal level when it is off.)

Therefore it would have been obvious to a person of ordinary skill in the art at the

time the invention was made to include the pin level configurability of the Squires device

for greater ease of use in the Howell device. (*See Squires abstract.*)

As to claim 149 Howell teaches:

The semiconductor in accordance with claim 132 wherein, said vending equipment interface comprises a UART, (*See Howell Figure 3.* RS232 is a UART. But Howell does not address pin level configurability.) said UART transmit line is pin level configurable during non-data communication idle states to a high impedance state or a low signal level state. (*See Squires claims 1 and 2.* Claim 1 is pin level configurable device and claim 2 is that device being a UART. Since the Squires device does not have a bypass it will supply high impedance, low signal level when it is off.)

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the pin level configurability of the Squires device for greater ease of use. (*See Squires abstract.*)

7.   Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Howell in view of E&P and Miller et al. (U.S. Patent 5,959,869).

Howell teaches:

The semiconductor in accordance with claim 1, wherein said computing platform by way of said interactive interface data communicates a command to said semiconductor to request said semiconductor data communicate MDB TRANSACTION STRING data (*See Column 4 Lines 28-47.* Connections made using the MDB protocol will obviously use MDB TRANSACTION STRINGs to communicate.) and card reader data to said computing platform (While Howell does not explicitly teach sending card reader data Miller teaches the MDB bus as a standard for communicating with card

readers which are well known in the vending machine industry. *See Miller Column 11 Lines 19-22.*)

Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to send the MDB TRANSACTION String data and the card reader data to the computing platform where it could be data mined for marketing opportunities that might further vending machine profitability.

Conclusion

8.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

9.   A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10.   Examiner's Note: The Examiner has cited particular columns and line numbers in the references as applied to the claims for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are

applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Inquire

11.   Any inquiry concerning this communication from the examiner should be directed to Scott S. Trotter, whose telephone number is 571-272-7366. The examiner can normally be reached on 8:30 AM – 5:00 PM, M-F.

12.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James P. Trammell, can be reached on 571-272-6712.

13.   Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

14.   The fax phone number for the organization where this application or proceeding is assigned are as follows:

(571) 273-8300   (Official Communications; including After Final Communications labeled "BOX AF")

(571) 273-6705   (Draft Communications)

Scott Trotter
11/2/2007
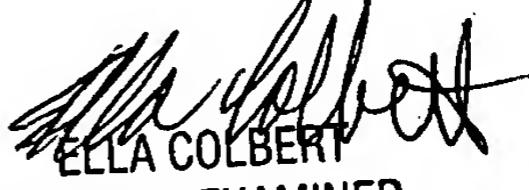
ELLA COLBERT
PRIMARY EXAMINER